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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/724,445 | 11/26/2003 | Jorge R. Serrano | C0034 | 1197 |
| 21495 7590 02/26/2007 CORNING CABLE SYSTEMS LLC P O BOX 489 HICKORY, NC 28603 | | | EXAMINER MAYO, TARA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3671 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 02/26/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-------------------------------|--------------------------------|--|
| Office Action Summary | Application No. 10/724,445 | Applicant(s) SERRANO ET AL. | |
| | Examiner Tara L. Mayo | Art Unit 3671 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14,29,31-36 and 38-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 38-45 is/are allowed.
- 6) ☒ Claim(s) 29 and 31-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 July 2006 has been entered.

Claim Rejections - 35 USC § 103

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 29 and 31 through 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Searby (U.S. Patent Publication No. 2005/0074293 A1) in view of Rivard (U.S. Patent No. 4,812,078).

Searby '293 disclose a method for placing a duct in a surface comprising the steps of:
with regard to claim 29,

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forming a channel of predetermined width in the surface; and
placing the duct into the channel, thereby forming a friction fit between the duct and the channel over a portion of the length of the cut, wherein the duct has a diameter greater than the predetermined width of the channel (paragraph 0033); and
with regard to claim 32,

further comprising the step of placing a filling material into the channel that overlies the duct, thereby at least partially filling the channel and covering the duct (paragraph 0029).

Searby '293 fails to teach:

the surface being a paved surface;

placing a filling material into the channel that overlies the duct, the filling material not previously excavated from the channel;

routing at least one fiber optic cable within the duct;

the duct comprising an inner tube and a jacket, the jacket being formed of a compressible, heat-resistant material; and

the duct being of non-round cross section.

Rivard '078 discloses a process for laying an elongate object in a trench comprising the step of filling the trench with sand (col. 5, lines 36 through 61) along with material previously excavated from the trench (col. 5, lines 15 through 30).

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With regard to claim 29, the method disclosed by Searby '293 is capable of being performed on a paved surface. Therefore, it would have been obvious to one having ordinary skill in the art of cable laying at the time of invention to modify the method disclosed by Searby '293 such that it would have been performed on a paved surface instead of turf since the Examiner takes Official Notice of cable laying operations performed on paved surfaces.

With regard to claim 29, it would have been obvious to one having ordinary skill in the art at the time of invention to form the ducts of inner tubes and jackets since the Examiner takes Official Notice of the same for protecting waveguides.

With regard to claim 29, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the method disclosed by Searby '293 such that it would further include the step of filling the trench with fine sand over the duct as taught by Rivard '078. The motivation would have been to fill the trench with a relatively fine material to reduce the risk of damage to the duct.

With regard to claims 29 and 31, Searby '293 fails to teach a ratio between a channel width and a major dimension of the duct being about 0.95 or less. It would have been obvious to one having ordinary skill in the art of conduits at the time the invention was made through routine experimentation and optimization to determine an optimal width of the channel relative to the duct. The motivation would have been to effect a desired fit of the duct within the channel. Furthermore, it has been held that in the absence of a showing by Applicant that particular dimensions recited in the claims are critical or provide an unexpected result, the limitations are met by the prior art which is capable of being manufactured to the claimed dimensions. *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

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With regard to claim 33, because routing fiber optic cables through ducts is a well known expedient in the art, it would have been obvious for one having ordinary skill in the art at the time of invention to modify the method disclosed by Searby '293 such that it would further include the step. The motivation would have been to establish a path for communication lines in the underground duct as desired.

With regard to claim 34, it would have been obvious to one having ordinary skill in the art at the time of invention to make the jacket a foamed material to provide for compression during installation in the channel.

With regard to claim 35, it would have been obvious to one having ordinary skill in the art at the time of invention to make the jacket from a heat resistant material to protect the lines carried by the duct from damage caused by increased temperature.

With regard to claim 36, it would have been obvious to one having ordinary skill in the art at the time of invention to make the duct of non-round cross section to provide for enhanced anchoring in the channel.

Allowable Subject Matter

4. Claims 1 through 14 and 38 through 45 are allowed.
5. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TLM
20 February 2007


TARA L MAYO
PATENT EXAMINER